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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/418,628

10/15/1999

TERRY L. WILLIAMS

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05/19/2004

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EXAMINER

DAVIS, TEMICA M

ART UNIT

PAPER NUMBER

2681

18

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/418,628

Applicant(s)

WILLIAMS, TERRY L.

Examiner

Temica M. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Brody et al (Brody), U.S. Patent No. 4,670,899.

Regarding claims 18 and 23, Brody discloses a method/system for dynamically allocating signal processors in a wireless system, comprising allocating to a transceiver (i.e., cell site controller 32 which transceives information via data links 58 and 60; figure 2) assigned to a cell (T9) (col. 9, lines 40-68), a first plurality of channel processors (i.e., any of the plurality of available VCO transceivers 50a-50n/1-72) for processing traffic channels contained on a frequency channel (col. 9, line 56-col. 10, line 15); in response to notification of a call originating from or to a subscriber unit in said cell (col. 10, lines 29-45), determining if there is at least one of said first plurality of channel processors that is available for processing said call and assigning said call to any one of said first plurality of channel processors that is available (col. 8, lines 60-65 and col. 10, lines 49-66).

Regarding claim 19, Brody discloses the method according to claim 18 further comprising the step of assigning at least a second plurality of channel processors (i.e.,

any of the remaining unused transceivers available to accept a call) to said transceiver responsive to said determining step if there is not an available one of said plurality of channel processors among said first plurality of channel processors (col. 11, lines 36-64 and col. 13, lines 50-62).

Regarding claim 20, Brody discloses the method according to claim 18 further comprising the step of rejecting said call if all of said channel processors assigned to said transceiver are in use and there are no further channel processors available to be allocated to said transceiver (col. 16, line 61-col. 17, line 2).

Regarding claim 21, Brody discloses the method according to claim 18 further comprising the step of inherently incrementing a number of available channel processors in said cell when said call is terminated as evidenced by the fact that the system keeps track of the number of transceivers engaged in communication (col. 11, lines 40-55).

Regarding claim 22, Brody discloses the method according to claim 18 further comprising the step of inherently decrementing a number of available channel processors in said cell when said call is assigned as evidenced by the fact that the system keeps track of the number of transceivers engaged in communication (col. 11, lines 40-55).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brody in view of Carney et al (Carney), U.S. Patent No. 5,970,410.

Regarding claims 1 and 8, Brody discloses a method and inherent means for determining a number of pooled available channel processors which are unused in a broadband base station (col. 10, lines 4-15, col. 13, lines 50-57; figure 4; items 86, 88 and 90), said base station supporting a cell (col. 8, lines 57-65), each of said available channel processors capable of processing any of a plurality of traffic channels contained on any frequency channel assigned to said base station (col. 9, lines 62-68; figure 1); in response to notification of a call originating from or to a subscriber in the cell, determining if said number of available channel processors of said base station is at least one (col. 8, lines 60-65, col. 10, lines 49-66); selecting any of said available channel processors for processing of said call and assigning said call to said available channel processor which has been selected (col. 10, lines 49-66).

Brody, however, fails to specifically disclose wherein the broadband base station supports a plurality of cells.

In a similar field of endeavor, Carney discloses a cellular system using in-band translators to enable efficient deployment of high capacity base transceivers systems.

Carney further discloses wherein a broadband base station supports a plurality of cells (col. 3, lines 8-18).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Brody with the broadband base station of Carney for the purpose of reducing the number of base stations in the cellular system thereby producing a cost-efficient system (Carney, col. 2, lines 50-58 and col. 3, lines 11-14).

Regarding claims 2 and 9, the combination of Brody and Carney discloses the method/means according to claims 1 and 8 and further discloses decrementing the number of available CP resources by one after said assigning step as evidenced by the fact that the system keeps track of the number of transceivers engaged in communication (Brody, col. 11, lines 40-55).

Regarding claims 3 and 10, the combination of Brody and Carney discloses the method/means according to claims 1 and 8 and further discloses the step of rejecting said call if all channel processors of said BBS are in use (Brody, col. 16, line 61-col. 17, line 2).

Regarding claims 5 and 12, the combination of Brody and Carney discloses the method/means according to claims 1 and 8 and further discloses wherein the number of available channel processors is determined by counting the total number of channel processors assigned to the BBS and decrementing said total number by at least one of, a total number of active subscriber calls in the BBS and the number of channel processors assigned for handling control channel traffic in said BBS as evidenced by the fact that the system keeps track of the number of transceivers engaged in communication (Brody, col. 11, lines 40-55).

Regarding claims 6 and 13, the combination of Brody and Carney discloses the method/means according to claims 1 and 8 further comprising the step of incrementing said number of available channel processors in said cell when said call is terminated as evidenced by the fact that the system keeps track of the number of transceivers engaged in communication (Brody, col. 11, lines 40-55).

Regarding claims 15 and 16, the combination of Brody and Carney discloses the method/means of claims 1 and 8, wherein said BBS is a sectorized BBS, said sectorized BBS supporting a plurality of sectors (Brody, col. 3, lines 41-52).

Regarding claim 17, the combination of Brody and Carney discloses the system of claim 16 and further discloses wherein said BBS comprises a plurality of broadband transceivers (Brody, col. 3, lines 41-52, col. 9, line 56-col. 10, line 15).

5. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brody and Carney as applied to claims 3 and 10 above, and further in view of well known prior art.

Regarding claims 4 and 11, the combination of Brody and Carney discloses method/means of claims 3 and 10 as described above. The combination however, fails to disclose incrementing a count of rejected calls each time a call is rejected for lack of sufficient available channel processors.

The examiner contends that such a feature is well known in the art and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Brody and Carney with counting the amount of rejected calls in the system due to lack of resources (as is known in the art) for the purpose of maintaining a record of system usage in order to help in determining if resources should be added to the system in order to service the amount of call traffic the system receives.

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brody and Carney as applied to claims 1 and 8 above, and further in view of Sun, U.S. Patent No. 6,278,875.

Regarding claims 7 and 14, the combination of Brody and Carney discloses the method/means according to claims 1 and 8 as described above. Brody further discloses wherein the cells can be sectorized (col. 3, lines 41-52). The combination, however, fails to disclose handing over said call from first cell of the BBS to a target cell of the BSS and continuing to process the call on said available channel processor which has been selected and assigned prior to the step of handing over the call to the target cell.

In a similar field of endeavor, Sun discloses a method of setting up a call through indirect access in a mobile communication system. Sun further discloses wherein the system is sectorized, and wherein each sector in the cell is controlled by one base transceiver station (BTS) (col. 2, line 63-col. 3, line 8). Sun also discloses handing over a call from first cell/sector of the BTS to a target cell/another sector of the BTS and

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continuing to process the call on an available channel processor (12) which has been selected and assigned prior to the step of handing over the call to the target cell (col. 4, lines 32-54, lines 66-col. 5, line 64).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Brody and Carney with the teachings of Sun for the purpose of reducing system resources and further performing such a handoff in order to maintain the call.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bevan et al, U.S. Patent No. 6,415,149, discloses a method and apparatus for handoff in a cellular system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached Monday-Friday (alternate Fridays) from 9:00am-3:00pm.

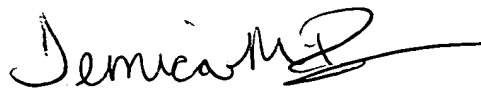
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temica M. Davis
Examiner
Art Unit 2681

May 15, 2004



**TEMICA M. DAVIS
PATENT EXAMINER**